CAPS Survey Report

Year:	2011
State:	Kansas
Cooperative Agreement Name:	Spotted Knapweed (<i>Centaurea stoebe</i> L.) biological control using the lesser knapweed flower weevil (<i>Larinus minutus</i>) and the knapweed root weevil (<i>Cyphocleonus achates</i>)
Cooperative Agreement Number:	11-8453-1227-CA and 10-8453-1227-CA extension
Project Funding Period:	January 1, 2011 – December 31, 2011 and January 1, 2010 – December 31, 2011
Project Report:	CAPS Survey Report
Project Document Date:	January 1, 2011 – December 31, 2011
Cooperators Project Coordinator:	Laurinda Ramonda
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Quarterly Report	
Semi-Annual Accomplishment Report	
Annual Accomplishment Report	\boxtimes

A. Write a brief narrative of work accomplished. Compare actual accomplishments to objectives established as indicated in the work plan. When the output can be quantified, a computation of cost per unit is required when useful.*

KDA full time – Darin Banks provided release and visual survey. Seasonal staff – Brian Brunkow did visual survey.

- June 21, 2011 Darin Banks checked for previously released knapweed flower weevils and knapweed root weevils. Spotted knapweed density data: 1 meter by 1 meter plot, 17 stems and 9 rosettes. There was no evidence of damage or weevils.
- July 13, 2011 Jeff Vogel released 1,200 knapweed flower weevils (*Larinus minutus*) received from the Colorado Department of Agriculture at the Nemaha County site.
- August 1, 2011 Seasonal staff, Brian Brunkow, started visual delimiting surveys on known spotted knapweed infestations.
- August 12, 2011 Visual surveys completed by Brian Brunkow.
- August 18, 2011 Darin Banks released 2,000 knapweed root weevils (*Cyphocleonus achates*) received from WeedBusters BioControl.
- September 2, 2011 Darin Banks released 700 knapweed root weevils (*Cyphocleonus achates*) received from the Colorado Department of Agriculture. Also at this time larvae feeding exit holes were observed from two spotted knapweed plants over a 50 meter by 50 meter area.

Funding Amount (USDA)	Funding Amount (KDA)	Total Number of Biological Control Agents and Visual	Cost Per Unit
		Surveys	
Proposed = \$4,723	Proposed = \$3,329	Proposed = $1,400$	Proposed= \$5.37
		insects and 100 visuals	
Actual = \$4,723	Actual = \$3,329	Actual = $1,200$ flower	Actual =\$1.87
		weevils, 2,700 root	
		weevils and 397 visual	
		surveys	

1. Survey methodology (trapping protocol):

	Common Name	Scientific Name
Pest:	Knapweed Flower Weevils	Larinus minutus
	Knapweed Root Weevils	Cyphocleonus achates
	Spotted Knapweed	Centaurea stoebe L.

	Proposed	Actual
Sites (Locations):	6	8
Visual inspections:	100	397
Sites (Locations):	1	1
Biological Control Release:	1,400	1,200 - knapweed flower weevils (<i>Larinus minutus</i>) 2,700 - knapweed root weevils (<i>Cyphocleonus achates</i>) 3,900 - Total biocontrol insects released

Visual Inspections	Proposed	Actual
Number of	6	8
Counties:		
Counties:	Douglas, Franklin, Johnson, Miami,	Douglas, Franklin, Jackson,
	Shawnee and Nemaha	Johnson, Marshall, Miami,
		Nemaha and Pottawatomie

2. Survey dates:

	Proposed	Actual
Survey Dates:	June – October 2011	June 21 – September 2, 2011

3. Benefits and results of survey:

	Positive	Negative	Total Number
Biological Control Release	1,200 – knapweed	0	1,200 - knapweed
	flower weevil		flower weevil
	2,700 - knapweed	0	2,700 - Knapweed
	root weevil		root weevil

4. <u>Database submissions</u>:

Records Submitted to NAPIS

Biocontrol Insects	Positive	Negative	Total
July 12, 2011 - Lesser Knapweed Flower Weevil (<i>Larinus minutus</i>) Nemaha County	1	0	1
August 19, 2011 - Knapweed Root Weevil (<i>Cyphocleonus achates</i>) Nemaha County	1	0	1
September 2, 2011 - Knapweed Root Weevil (<i>Cyphocleonus achates</i>) Nemaha County	1	0	1
State Total	3	0	3

Pest: SPOTTED KNAPWEED

County	Positive	Negative
Douglas	2	36
Franklin	0	15
Jackson	0	2
Johnson	4	50
Marshall	0	25
Miami	0	26
Nemaha	23	208
Pottawatomie	0	6
State Total	29	368

B. If appropriate, explain why objectives were not met.*

- Jeff Vogel provided biocontrol release of knapweed flower weevils because Darin Banks was unavailable.
- No data points were taken for Shawnee County. Only visual inspection of existing area of spotted knapweed.
- C. Where appropriate, explain any cost overruns or unobligated funds in excess of \$1,000.

*indicates information is required per 7 CFR 3016.40 and 7 CFR 3019.51			
Approved and signed by			
Cooperator	Date:		
ADODR	Date:		